

CLAIMS

We claim:

1. A variable folder having a product strand path extending therethrough,
said variable folder comprising:
a cross-cutting arrangement including a cutting cylinder and at least one cutting
blade carried on said cutting cylinder functional for cutting a product from a feeding web
strand fed along the product strand path, said at least one cutting blade having a plurality of
recesses functioning to leave residual crosspieces in said feeding web strand by which said
product remains connected to said feeding web strand;
a collecting cylinder located downstream of said cross-cutting arrangement along
the product strand path;
a product directing arrangement which leads from said cross-cutting
arrangement to said collecting cylinder; and
accelerating and tearing-off cams at a location between said cross-cutting
arrangement and said collecting cylinder through which said product passes, said accelerating
and tearing-off cams operable for gripping said product to tear off said product from said
feeding web strand at said residual crosspieces.

2. A variable folder according to claim 1, wherein said cutting blade has
three recesses, said recesses being arranged to register with border regions and a center of said
feeding web strand.

1 3. A variable folder according to claim 1, wherein each residual crosspiece
2 has an accelerating and tearing-off cam associated therewith.

1 4. A variable folder according to claim 1, wherein said accelerating and
2 tearing-off cams are arranged to register with print-free regions of said feeding web strand.

1 5. A variable folder according to claim 1, further comprising first and
2 second drawing arrangements arranged one after another upstream of said cross-cutting
3 arrangement, said first and second drawing arrangements each operating at a circumferential
4 speed which is greater than a speed of said feeding web strand received from upstream printing
5 units by a lead which is adjustable.

1 6. A variable folder according to claim 5, further comprising a third
2 drawing arrangement arranged between said cross-cutting arrangement and said accelerating
3 and tearing-off cams, said third drawing arrangement being operable at the circumferential
4 speed of said first and second drawing arrangements.

1 7. A variable folder according to claim 6, wherein said accelerating and
2 tearing-off cams are operable at a higher circumferential speed than the circumferential speed
3 at which said first, second and third drawing arrangements are operable.

1 8. A variable folder according to claim 1, further comprising a driven
2 roller, said accelerating and tearing-off cams interacting with said driven roller.

1 9. A variable folder according to claim 8, wherein a ratio of a speed of said
2 driven roller to a speed of said accelerating and tearing-off cams is other than a whole number.

1 10. A variable folder according to claim 1, wherein said product-directing
2 arrangement comprises a belt directing system which in operation is product non-engageable.

1 11. A variable folder according to claim 1, wherein said product-directing
2 arrangement comprises tongues.

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